

**WE CLAIM:**

1           1.     A system for incorporating local content into a communication stream,  
2     comprising:  
3           a)     means for transmitting a communication stream including program content to a  
4     receiver;  
5           b)     means for inserting in the program content tags descriptive of local action at the  
6     receiver;  
7           c)     means for capturing the program content at the receiver and storing the tags in  
8     tables; and  
9           d)     means for processing the tags to insert local content in place of the program  
10    content for re-transmission to the local area served by the receiver.

1           2.     The system of Claim 1 further comprising:  
2           e)     means for authoring tags and inserting them into the program content.

1           3.     The system of Claim 1 further comprising:  
2           f)     means for scheduling the tags in the program content for local action.

1           4.     The system of Claim 1 further comprising:  
2           g)     a first table means in the receiver for storing a first tag in the program content;  
3     and

4 h) a second table means in the receiver for storing a second tag in the program  
5 content.

1 5. The system of Claim 1 wherein the first tag comprises:

2 i) means for identifying local content for splicing or replacing program content.

1 6. The system of Claim 1 wherein the second tag comprises:

2 j) means for overriding the local tag with other content.

1 7. The system of Claim 1 wherein each tag comprises a header, tag type and local  
2 action.

1 8. The system of Claim 1 wherein the processing means comprises;

2 k) a supervisor for scanning a first and a second table for tags; and

3 l) means for detecting a scheduled time in the program content for initiating and  
4 transmitting local action described in a tag.

1 9. The system of Claim 1 wherein the means for inserting tags in the program  
2 content comprises:

3 m) an authoring tool generating local and override tags; and

4 n) means included in each tag defining a header, a tag type and local action.

1           10.    An enhanced TV system comprising:  
2           a)    at least one source for transmitting compressed, packetized audio/video program  
3 content with tags in a communication stream;  
4           b)    at least one enhanced TV station for receiving the communication stream;  
5           c)    means for expanding the received communication stream;  
6           d)    means for processing the tags in the communication stream to insert local content  
7 underlying or spliced into the program content; and  
8           e)    local receivers for receiving, viewing and interacting with the program content.

1           11.   The enhanced TV system of Claim 10 further comprising:  
2           f)    computer means including a memory;  
3           g)    program instructions stored in the memory for authoring tags; supervising tag  
4 processing;  
5           h)    scheduling tag insertion into the program content and splicing tags into the  
6 program content; and  
7           i)    means coupling the computer to web servers for e-commerce, database  
8 information and tracking interaction with the local receivers.

1           12.   The enhanced TV system of Claim 11 further comprising:  
2           j)    the local receiver means generating and transmitting messages to the enhanced TV  
3 station; and  
4           k)    means for transmitting the messages and/or the tags to the web servers which  
5 provide content for the tags and/or respond to the messages.

1           13.    A method of processing tags in a communication stream containing program  
2 content for delivery to a receiver, comprising the steps of:  
3           a)     capturing the program content including the tags and storing the tags in tables at  
4                 the receiver; and  
5           b)     processing the tags to insert local content in place of the program content at a  
6 scheduled time in the program content for re-transmission to an area served by the receiver.

1           14.    The method of Claim 13 further comprising the step of:  
2           c)     scheduling the tag in the program content for incorporation into the  
3 communication stream at scheduled insertion points.

1           15.    The method of Claim 13 further comprising the step of:  
2           d)     coupling a settop box to the receiver for interaction in accordance with an action  
3 defined in a tag.

1           16.    The method of Claim 13 further comprising the step of:  
2           e)     sending messages to the transmitter from settop boxes.

1           17.    The method of Claim 13 further comprising the step of:  
2           f)     tracking settop interaction with the receiver or local modifications made by the  
3 tag in the program content.

1           18.    The method of Claim 13 further comprising the step of:

2           g)     transmitting messages to web servers for contents identified by the tag or  
3 requests from settop boxes.

1           19.    A supervisor module in an enhanced TV station comprising:

2           a)     means for reading program content in a communication stream from a transmitter;

3           b)     means for identifying tags in the program content;

4           c)     means for inserting identified tags in tables; and

5           d)     means for replacing program content with local content based on the identified  
6 tags.

1           20.    The supervisor module of Claim 19 further comprising:

2           e)     means for storing the tags in a local table or an override table according to a tag  
3 identifier.

1           21.    The supervisor module of Claim 19 further comprising:

2           f)     means for implementing the local table tags in the program content unless  
3 replaced by the override table tags.

1           22.    A method for processing tags to replace program content in a communication  
2 stream with local content, comprising the steps of:

3           a)     reading program content in a communication stream;

4           b)     identifying tags in the program content;

- 5 c) inserting identified tags in tables; and
- 6 d) replacing program content with local content based on the identified tags.

1 23. The method of Claim 22 further comprising the step of:

- 2 e) storing the tags in a local table or an override table according to a tag identifier.

1 24. The method of Claim 22 further comprising the step of:

- 2 f) implementing the local table tags in the program content unless replaced by the
- 3 override table tags.

1 25. A method for installing tags to replace program content in a communication

2 stream with local content, comprising the steps of:

- 3 a) commanding a capture device to read the program content;
- 4 b) obtaining the tags in the program content and the location and where they are to
- 5 be inserted into the content;
- 6 c) scheduling the tags so that they arrive in the content by the time specified for their
- 7 insertion;
- 8 d) inserting the tags into the program content at the scheduled time; and
- 9 e) storing the finished program content with the tags or encoding the program
- 10 content and the tags for broadcast.

1           26.    A program medium executable in a computer system for processing tags in a  
2 communication stream containing program content for delivery to a receiver, comprising:

3           a)     program instruction in the medium for capturing the program content including  
4 the tags and storing the tags in tables at the receiver; and

5           b)     program instructions in the medium for processing the tags to insert local content  
6 in place of the program content at a scheduled time in the program content for re-transmission to  
7 an area served by the receiver.

1           27.    The program medium of Claim 26 further comprising:

2           c)     program instructions in the medium for scheduling the tag in the program content  
3 for incorporation into the communication stream at scheduled insertion points.

1           28.    The program medium of Claim 26 further comprising:

2           d)     program instructions in the medium for coupling a settop box to the receiver for  
3 interaction in accordance with an action defined in a tag.

1           29.    The program medium of Claim 26 further comprising:

2           e)     program instruction in the medium for sending messages to the transmitter from  
3 settop boxes.

1           30.    The program medium of Claim 26 further comprising:

2           f)     program instructions in the medium for tracking settop interaction with the  
3 receiver or local modifications made by the tag in the program content.

